



indicates simpleness, sweetness, nobleness. The difference of these two hands plainly answers to that of their characters."

21. Chateaubriand.—On this hand the French author remarks: "It announces a character full of vivacity; it bears the impress of a lively, bold, and original imagination, which, while it engages with lofty ideas, does not neglect details."

22. Voltaire.—On this hand our author observes: "It is seldom that men of letters possess so good a hand; but it is that of a man who excelled in every thing he undertook. It denotes firmness and boldness, but also levity, facility, and a particular grace. There is here gaiety and playfulness, which, however, are not permitted to engross."

23, 24. Two female hands, also from the French work. On No. 23 the author remarks: "The handwriting of a female which indicates great evenness of character, the love of order, and much sweetness!" Of No. 24 he says: "It is the writing of a lady who had a cultivated mind, but who was deficient in order, and did not sacrifice enough to the graces!"

25. The Duke of Wellington's hand.—A flowing unembarrassed hand.

26. Professor's Wilson's hand.—This straggling, irregular hand, though not large, indicates the sanguine temperament.

27. Mr Canning's hand.—This hand also indicates a large admixture of the sanguine temperament.

28. Joseph Hume's hand.—A free emphatic hand, approaching to a business hand.

(2.)

*Trial of John Tawell for the Murder of Sarah Hart by Prussic Acid; with Remarks.* By D. SKAE, M.D., F.R.C.S.

POISONING with hydrocyanic acid has of late attracted a good deal of public attention; the acquittal, in a recent case, of an individual accused of this crime, in circumstances warranting very strong suspicions, has given to the subject a degree of interest and importance which, while it may and perhaps in the case before us actually did produce a most baneful impression as to the facility with which such a crime might be securely perpetrated, demands for that very reason the most serious consideration of the profession, and of the medical jurist in particular. The trial of John Tawell has occurred most opportunely, we may say providentially, for the exposition of those principles upon which such cases should be judged; and is extremely instructive and valuable, not only from the fact that a conviction followed upon the circumstantial evidence which was given, and that the subsequent confession of the criminal justified that conviction, but more particularly from the principles which were so clearly and authoritatively laid down by the learned judge who presided at the trial, as to the legal evidence required in such cases. The case must undoubtedly exercise a marked influence upon the conduct of similar trials, and afford a precedent of the utmost value, not more from the satisfaction afforded by the confession of the criminal, than from

the general esteem and confidence with which the opinions of so great a legal authority as Baron Parke are received.

The circumstances of the case, as proved in evidence, were shortly as follows. The prisoner, a man about fifty years of age, who had at a former time been banished for forgery, but had subsequently sustained a respectable character, and carried on business as a chemist and druggist, and was in comfortable if not affluent circumstances, lost his first wife about six years ago. Shortly before her death the deceased, Sarah Hart, a young woman about thirty years of age, entered his service, and some months after the death of her mistress became pregnant by the prisoner. She soon afterwards left his service and was delivered of a child. The prisoner continued to visit her, contributed about £1 a-week for her maintenance, and she afterwards gave birth to a second child to him. At the period of her death the deceased had gone to Slough, and resided in lodgings at Bath Place upon the Great Western Road, where the prisoner was in the habit of visiting her and paying her money. About four years ago Tawell married a second wife, a lady of great respectability and of most amiable disposition, who appears to have entertained the highest esteem and affection for her husband, and from whom he most carefully concealed his connexion with the deceased. His anxiety to conceal that connexion was increased by a wish on his part to become a member of the Society of Friends, and induced the deceased, at his request, so completely to separate herself from the world that her place of residence was unknown to her own parents for some years previous to her death. On the 30th of September last, Tawell visited the deceased at her house in Bath Place; and about ten minutes after his arrival a female friend residing with her was despatched for a bottle of porter. About a quarter of an hour afterwards Tawell left the house, and Mrs Hart, the deceased, immediately came out of the room where they had been, complaining of sickness, giddiness, and inability to stand. She said that she had become giddy immediately after drinking the porter, and had been obliged to request her old master to go away. She left thirteen sovereigns which she had received from him, lying on the table, and immediately went to bed; and after a good deal of vomiting at the time and through the course of the night, she recovered. The female residing with her drank some of the porter remaining in the bottle, and gave some of it to the children; but none of them were sickened by it in the least.

On the 1st of January last the prisoner Tawell again visited the deceased, for the purpose of paying her quarterly allowance. Before leaving London he left his greatcoat in charge of the waiter at the Jerusalem Coffeehouse, saying he was going to dine at the west end of the town, and would return for it about

nine o'clock in the evening. He then went to the station of the Great Western Railway, and left by the four o'clock train for Slough. On arriving at Slough he immediately went to the residence of Sarah Hart at Bath Place, and soon afterwards sent her to a neighbouring public house for a bottle of porter. The deceased was seen on her way home with the porter, and appeared to be in good health and spirits. Shortly after her return, between six and seven o'clock in the evening, a neighbour residing in an adjoining apartment heard a moan or stifled groan proceeding from the room of the deceased. She immediately laid down her work, and taking her candle from the table, went out to ascertain what was the matter. She then saw the prisoner coming out of Mrs Hart's house; and as she walked down the little path through the garden in front of her cottage to enter that belonging to the deceased, she said to the prisoner, "I am afraid my neighbour is ill;" but he made no reply. She then saw that he was agitated, and could not open the gate in front of Mrs Hart's house. She observed to him that it was fastened by a button; and as she opened it for him and he passed out, she distinctly remarked his face and agitation. On going into Mrs Hart's house she found the deceased lying on the floor, her head not far from the door, her legs near the fire, and her dress in a disordered state. Her clothes were up to her knees, the left stocking was down to the ankle, and the left shoe off. Her gown was torn, her cap was off and at a little distance from her, and her hair was loose. She was still making a noise, and her eyes were fixed, but she did not move her limbs. On raising her up a little, some froth came out of her mouth, and she (witness) thought she was dying. This witness then went for a neighbour, and they bathed the face of the deceased with water, and sent for a surgeon. The surgeon, on arriving, considered her dead after examining her pulse and heart; but attempted to bleed her, thinking that he observed some movement of the jaws. A small quantity of blood flowed from the vein,—but no further signs of life were observed.

In the mean time, Tawell was seen making his way quickly to the railway station, but before reaching it, he got into an omnibus going to Eton, was at his request put down at Herschel House, not far from the station; from thence he appears to have walked back to the station, when he took his place for London, by a train which left about a quarter before eight. By this time suspicion had become attached to the prisoner; and the Rev. E. T. Champneys, a cousin of the surgeon who had just been visiting the deceased, having come to the station and seen Tawell enter, imparted his suspicions to the superintendent immediately after the departure of the train. Information was instantly conveyed to London by means of the electric tele-



graph; and on the arrival of the train at the London terminus, a policeman was in waiting to watch the movements of the prisoner. Tawell was accordingly followed, watched, and on the following morning arrested. After his arrestment, he denied that he had been at Slough on the previous day; but subsequently, on the day following his apprehension, he gave a statement to the constable in whose charge he was, obviously constructed with considerable ingenuity, with the view of forestalling the conclusions which might be formed as to the cause of his victim's death. This unfortunate woman, he said, lived in his service some years ago. He had been in the habit of sending her money, and had been pestered by her writing to him for money; she had been a very good servant while she was in his service, but she was a bad principled woman. She had written to him to say, that if he did not send her some money, she would do something—would make away with herself. He then stated that he had gone down to her house, and said he would not allow her any more money; that she then asked him if he would give her a drop of porter, and that he sent her for a bottle of stout, of which each had a glass; that she held her hand over her glass, and said, "I will, I will;" that she poured something out of a small phial, not much bigger than a thimble; that she drank a part of it, and that the remainder was thrown in the fire; that she then began to throw herself about in a manner which the prisoner imitated by moving his shoulders to and fro, and that she lay down on the hearth-rug; that he then went out, and that he did not think she was in earnest, otherwise he would have called some one. When asked if he had kept any of her letters to him, he replied, "No; I do not keep such letters as these."

On the day following the death of Mrs Hart, eighteen hours after death, her body was examined by Mr Champneys, along with another surgeon, Mr Pickering. Mr Champneys on opening the body perceived the odour of prussic acid, and made some observations regarding it to Mr Pickering, who also immediately recognised it. They discovered no lesion in the stomach or other viscera of the abdomen, nor in the heart, lungs, trachea, or œsophagus, to account for death. The brain and spinal cord were not examined. The stomach with its contents was removed and preserved for subsequent examination.

On the following day the suspected matters were taken to London and analyzed by Mr Cooper, in presence of his son, Mr Champneys, Mr Pickering, and Mr Norbald. Notwithstanding the odour observed at the dissection, oxalic acid was the substance suspected to have been administered; and the investigation was accordingly first directed towards its discovery, and afterwards for that of opium, sulphuric acid,

arsenic, the mercurial salts, and other metallic poisons, but no trace of any of those substances was detected. Some of the contents of the stomach were then distilled from a sand-bath, and tested for prussic acid, of the presence of which unequivocal evidence was obtained by the formation of the Prussian blue. Part of the contents of the stomach was also distilled from a water-bath, made with a boiling solution of chloride of sodium; the clear fluid which passed over gave a deep blue, with sulphate of iron, potassa, and muriatic acid. A portion of this liquid was treated with nitrate of silver, and an insoluble white precipitate, having the properties of the cyanide, was obtained. This precipitate was afterwards treated with muriatic acid, and subjected to distillation, and the distilled fluid *smelt* of prussic acid. The odour of prussic acid was not perceived at any previous step of the analysis by any of those present—nor in the contents of the stomach itself, before they were analyzed, although Mr Cooper admitted that the acid must have been present in a free state, as the presence of free muriatic or acetic acid was indicated by litmns. On being asked whether he agreed with Mr Taylor in his Medical Jurisprudence that the odour of prussic acid may be found when all other tests fail to prove the presence of that acid, Mr Cooper said he did not believe it, and that his experience would lead him to a contrary conclusion. Sometimes he could not smell prussic acid at all, but recognised it only by its producing a spasmodic constriction about his throat. The capability of perceiving the odour depended very much upon the state of the nasal organ at the moment. Mr Cooper, and the three medical witnesses examined, all concurred in stating that the contents of the stomach smelt of beer or porter, and they considered the odour of the porter sufficient to conceal that of the poison. One of the witnesses had tried the experiment of mixing some prussic acid with a pint of porter, and, although he considered his sense of smell very acute, he could not then recognise the odour of the acid. From the quantity of cyanide of silver obtained from about a third-part of the contents of the stomach, Mr Cooper conceived that the whole contents must have contained one grain of anhydrous prussic acid, or about twenty grains of Scheele's acid, or fifty of the preparation of the London pharmacœia.

Some pieces of undigested apple were found in the stomach, but no pips. Mr Cooper made some experiments on apple-pips, with reference to the supposition that the prussic acid in this case might have been produced from that source. From the pips of fifteen apples he obtained only a trace of prussic acid, a quantity which he stated was inappreciable.

All the medical witnesses concurred, without hesitation, in ascribing death to poisoning with prussic acid.

It was further proved that the prisoner had purchased two drachms of Scheele's prussic acid on the morning of the 1st of January, stating that he required it for external application, being affected with varicose veins. The shopman of the druggist from whom it was purchased stated that he had experimented with prussic acid and porter, and that he did not think porter would disguise the smell. He had also distilled from the pips of 15 small apples, and obtained a quantity of cyanide of silver, which indicated 2-10ths of a grain of pure hydrocyanic acid. Several prescriptions were handed to the medical witnesses, in which prussic acid was mentioned, and were admitted by them to be proper prescriptions for alleviating the pain caused by varicose veins.

A very able and impressive defence was made for the prisoner by Mr F. Kelly. The arguments upon which he rested his defence were mostly as follows; and they are interesting, as having induced Mr Baron Parke to lay down the law regarding those points more distinctly and decisively than has perhaps been ever before done in any similar case. Mr Kelly contended, that before the prosecution could call upon the jury to condemn the prisoner to death, it must be proved that the deceased died of poison, and that that poison was prussic acid taken into the stomach. Circumstantial evidence might suffice to convict of murder by violence, but not in a case of poison, of which the jury were bound to demand positive and direct evidence. He further argued that the medical witnesses who swore as to the cause of death were not competent, because they had not themselves seen a case of poisoning with prussic acid. There was no positive evidence, he said, of the quantity of prussic acid in the stomach of the deceased, or of the source whence it was derived, nor of the quantity sufficient to cause death, except from the opinions and queries which the witnesses had formed from reading the books of authors who should themselves have been summoned to the court and examined on oath. If there was not enough of prussic acid in the stomach to account for death, there was an end, he said, of the case. He further contended that the pips of the apples she had eaten, and the substances contained in a cake of which she had partaken, and the saliva she must have swallowed, and the animal substances contained in her stomach, perhaps partly decomposed, might all together have yielded the quantity of prussic acid obtained by Mr Cooper in his analysis. Other circumstances in the circumstantial evidence against the prisoner were also commented upon with equal ingenuity by the learned counsel; and he concluded by urging upon the jury that there was neither motive nor temptation to lead the prisoner to the commission of so horrid a crime.

Mr Baron Parke, in his address, rendered an important service to the ends of justice by the legal principles which he



laid down to the jury for the guidance of their judgment in the case before them. In opposition to the arguments of the prisoner's counsel, he distinctly stated, that it was not a rule of law that in such a case positive or direct evidence should be required. It was not necessary that there should be positive proof of death having been caused by poison, or of the presence in the stomach of a sufficient quantity of poison to produce death. "It was not necessary to give direct and positive evidence in every step of the case; because, between such and circumstantial evidence there was no difference, if the latter satisfied the jury that death was occasioned by poison. It was not necessary to prove what quantity of prussic acid would destroy life, by the testimony of a person who had actually seen a human life destroyed by it; neither was it necessary to prove that such a quantity as would destroy life had been found in the stomach. \* \* \* The only fact requiring to be positively proved was the finding of the body, when this was possible. \* \* \* It was not necessary, in point of law, that proof should be given that the precise poison named had destroyed life. The inquiry was the same, whether the prisoner was charged with destroying life by poison, or by prussic acid." He admitted with the prisoner's counsel that it was necessary to prove that poison had been administered. The learned judge then proceeded to comment upon the evidence which had been adduced in proof of the administration of prussic acid. He very properly pointed out, with reference to the supposition that the poison might have been generated in the distillation from pips of apples present in the stomach, that there was no evidence of the actual presence of such apple-pips, and that the circumstance of the odour of prussic acid having been remarked at the post-mortem examination precluded that supposition, as it could not at that time have been created from the apple-pips. In regard to the statement made by the prisoner's counsel respecting the inadequacy of the medical witnesses, and the inadmissibility of the authorities and cases cited by them in evidence, the learned judge remarked to the jury,—“They had been told that they must have proof of the fact that the deceased had died from the effects of prussic acid, from persons who had had practical experience upon the subject, and who had absolutely witnessed death from prussic acid. They had also been told that they must have direct proof of the presence of such a quantity of prussic acid in the stomach as would cause death. But the law did not require any such proofs. The jury had heard the evidence of several scientific men—of men who had read the most authentic works upon the subject, and some of whom had tested the opinions contained in those works by experiments upon animals; and it was for the jury to say whether they were satisfied with that evidence, because if they were it was in conformity with the law.” From



their opinion it appeared that a grain, or even less than a grain, as proved by the case of the seven Parisian epileptics referred to, might cause death; and Mr Cooper had stated that he had not the least doubt that the stomach of the deceased contained at least a grain, if not more, of pure prussic acid.

The learned judge then proceeded to go over the whole evidence with great care, and to comment upon the bearing of the various facts which had been established.

The jury, after half an hour's absence, brought in a unanimous verdict of guilty.

Previous to the execution of Tawell he confessed his guilt, acknowledging that he had committed the crime in the manner proved against him on his trial.

It seems to be a general impression that the trial and the extraordinary verdict returned in the case of an individual who was tried at the Central Criminal Court, a short time before Tawell made his first attempt to poison Sarah Hart in the month of September last, both suggested the means used and the hope of escape in the event of detection, from the apparent difficulty of establishing to the satisfaction of a jury the commission of the crime. The conviction of Tawell must tend very much to correct the mistaken inferences which might be made from the result of the trial alluded to; and indeed the opinion is not concealed in some of the most able comments upon this trial contained in the public press, that had Baron Parke presided on that trial instead of the judge (now no more) who was then on the bench, that the prisoner would have been convicted, "in which event Tawell might never have been encouraged to his crime, and the unfortunate Sarah Hart might now be living."

The ingenious and eloquent counsel for Tawell was evidently driven to the adoption of the most improbable and extravagant positions and hypotheses in making out a defence for his client; but notwithstanding the tears and eloquence with which these were urged upon the feelings of the jury, the temporary impressions they may have produced were immediately dissipated by the clear expositions of the evidence and legal principles of the case by Mr Baron Parke, and the mode in which he presented them to the judgment of the jury. He distinctly laid it down that circumstantial evidence was equally available in cases of poisoning as in other modes of committing murder; that each step of the evidence might be proved by satisfactory although not by direct or positive evidence. That part of his opinion which referred to the quantity of poison actually found in the stomach, and to the competency of medical witnesses to give an opinion, although that opinion was founded upon the experience of others; the freedom with which the medical witnesses were allowed to cite cases and authorities

with regard to the points at issue, which cases, although objected to as evidence by the prisoner's counsel, were not only admitted but commented upon by the learned judge on the bench ;—these were all points of great interest and importance in this trial, and points in which it contrasts strongly with many former trials occurring in England, on which all evidence not founded upon personal knowledge has been rejected.

The most interesting medico-legal points presented in this trial are the rapidity of death, the prussic acid odour observed at the dissection of the body, the absence of that odour during the subsequent analysis, the detection of the poison by its characteristic tests, and the sources of fallacy in connexion with the apples which the deceased had been eating.

The sudden death of the deceased, after being seen in perfect health half an hour previous to her death, is rendered peculiarly interesting in connexion with the voluntary statement made by the prisoner on the day after his apprehension, before prussic acid was suspected to have been administered, or at least before he could have learned that it was. The description of her death by the witness Ashley, and the description given by Tawell for the purpose of forestalling suspicion, almost complete the descriptions of the symptoms of a case of poisoning with prussic acid. He described Mrs Hart as pouring the poison from a very small phial, as then throwing her arms about and falling down on the hearth-rug just before he went out ; the witness Ashley completed the description, by stating that immediately afterwards she found her lying on the floor, her dress disordered, one shoe pushed off and a stocking nearly so, her cap off and her hair loose, her eyes fixed, and her limbs now still ; a few short screams, and froth issuing from her mouth, were the only indications of life. The description thus afforded would in itself give a presumption of considerable force that prussic acid was the cause of death, strengthened by the circumstance of the prisoner's voluntary confession coinciding with the results of direct evidence.

The detection of the odour of prussic acid on the post-mortem examination of the body, by two surgeons, was of great importance in reference to the source of fallacy in the chemical analysis subsequently discovered, and was rendered the more valuable as a matter of evidence, from the fact that neither of the witnesses at that time imagined that prussic acid had been the poison employed. With reference to this test, as an evidence of the presence of prussic acid, it may perhaps be remarked that the precise value of it has not yet been determined. In connexion with other evidence, such as that derived from the symptoms and rapidity of death, it must be held as affording subsidiary evidence of great importance ; and in the case before us it actually did afford valuable subsidiary evidence in reference

to the supposed production of prussic acid from apple-pips : for admitting, if there had been any such pips present in the contents of the stomach, that prussic acid might have been generated in the subsequent distillation, which would at least have afforded a trace of its presence by the action of the usual re-agents employed, it cannot be doubted that it was impossible the odour could have been generated from that source at the time the body was examined. As it was quaintly remarked in the *Examiner*, "as scientific and rational would be the supposition that alcohol in a stomach might be attributed to a few grains of barley." On the other hand, it must, I think, be admitted that odours are at best fallacious tests, unless they have at least been perceived by several witnesses; and that the odour of prussic acid is occasionally generated in circumstances not yet fully understood. An instance of its formation, in the course of the decay of unsound cheese, ascertained by Dr Witling, is referred to by Dr Christison in his work on Poisons.\*

While engaged, some time ago, in the preparation of meconic acid from a large quantity of meconate of lime, procured in the manufacture of muriate of morphia, on adding muriatic acid to the meconate a well-marked odour of prussic acid was developed, which was distinctly perceptible for several days whenever the mixture was stirred; yet I was not able to detect a trace of the acid on the most careful analysis of a portion of the liquid. The prussic acid odour would even appear to be occasionally generated in the human body. Two such cases are cited by Dr Christison† from *Rust's Magazine*, in which this odour was observed in *post-mortem* examinations by Itard; in one there had been inflammation of the intestines, and in the other inflammation of the liver, and in neither had any medicine containing prussic acid been given. Mr Taylor observed an odour of a similar kind in examining the brain of a person who had died a natural death.‡ The occurrence of such cases should render the medical witness cautious in giving a dogmatic opinion from evidence founded upon the recognition of the odour alone; while, at the same time, their extreme rarity should not invalidate the presumption afforded by the odour in cases where the symptoms and other circumstances indicate that prussic acid had been the cause of death.

The fact that the odour of prussic acid was not distinguishable in the contents of the stomach, in the case under consideration, when they were subjected to chemical examination, it is not easy to explain. It is obvious, as already stated, that this cannot be explained by the supposition that the acid had entered into combination with ammonia, or any other base, as the fluid was

\* Treatise on Poisons, 4th edition, p. 756.

† Ibid, p. 774.

‡ Manual of Medical Jurisprudence, p. 251.



strongly acid, and undoubtedly contained muriatic and acetic acids, which must have rendered the prussic acid free. That it may have been masked by the odour of the porter with which the poison had been administered, is rendered probable by the evidence of several of the witnesses, founded upon direct experiments. In a case recorded by Chevallier, the presence of prussic acid was determined by chemical analysis, although the odour was not perceptible in the contents of the stomach until they had been subjected to distillation.\*

The presence of prussic acid was unequivocally determined by the chemical investigation in this case, and the estimate of the quantity which was present, with the comparative experiments on apple-pips, taken along with the circumstance of the odour being observed at the *post-mortem* examination, sufficiently proved that the prussic acid had been administered, and had not been generated after death. The evidence on this point would have been much more complete, and less open to the objections which were urged against it on the trial, had a more careful quantitative analysis been made of the whole contents of the stomach, and also some comparative trials with fluid obtained from the distillation of several specimens of apple pips, and substances such as were alleged to have been eaten by the deceased before her death. The well-known rapidity with which prussic acid volatilizes might also have been more pointedly referred to and kept in view by the medical witnesses, as affording evidence that a much larger quantity than that accounted for by the analysis must have been present.

In conclusion, it may be remarked, that the trial, the more interesting features of which I have thus briefly recorded, must be regarded as one of great importance. With the exception of the trial and conviction, towards the close of the last century, of Captain Donellan, for the murder of Sir Theodosius Boughton with cherry-laurel water, this is, so far as I know, the first case in which a conviction has followed the commission of murder by means of this poison. The progress of general knowledge, the increased use of prussic acid as a medicinal agent, and the widely diffused knowledge of its properties and effects as a poison; the facility with which it may be administered, and the apparent difficulties surrounding the evidence which may be adduced of its administration, all render the subject one of such interest and importance, that the medical practitioner could hardly escape the charge of criminal neglect were he not to make himself acquainted with the result of such a prosecution as that recorded in the foregoing pages.

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\* Annales d'Hygiène Publique, ix. p. 337.